

REMARKS

Claims 1-9, 11-13 and 15-23 are pending in this application. By this Amendment, claims 1, 2 and 21 are amended. Reconsideration of the present application based on the above amendments and the following remarks is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); (c) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

I. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1 and 21 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,525,741 to Chahal; claims 2-4, 6, 9 and 22-23 under 35 U.S.C. §103(a) as being unpatentable over Chahal in view of U.S. Patent No. 5,925,875 to Frey; and claims 2-9, 11-13, 15-20 and 22-23 under 35 U.S.C. §103(a) as being unpatentable over Chahal in view of U.S. Patent No. 6,252,536 to Johnson. These rejections are respectfully traversed.

Claims 1 and 21 are amended to better clarify that pixel error is compensated for both a channel with an automatic gain control tab and a channel without an automatic gain control tab. None of the applied art disclose, either individually or in combination, calibrating for pixel gain by multiplying a video signal output from an integrator, said video signal compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab, as claimed in claim 1; or an integrator,

wherein pixel gain is calibrated for by multiplying a video signal output from the integrator, said video signal compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab, as claimed in claim 21.

Similarly, none of the applied art disclose, either individually or in combination, adjusting an uncalibrated video signal to be within the correction range, and providing an offset level setpoint before calibrating pixel gain, as claimed in claim 2.

Instead, Chahal discloses a CCD activated video camera circuit for adjusting various CCD channel offset and gain values; two generally identical feedback loops used for offset and gain adjustment (Abstract; col. 3, lines 24-25); comparators 18, 19 which make an individual comparison of the channel digital white/black signals with a preset gain/offset reference signal (col. 3, lines 29-31); that each of the channels A and B output analog video signals representing approximately one-half of the graphical image of the object; that the channels need to be combined by means of a demultiplexer 17 to obtain the full image (col. 4, lines 7-14); and that the digital video signals, for channels A and B, output from the demultiplexer 17 proceed through comparators 18, 19 CELs 20, 21 U/D counters 22-25, and D-A counters 26-29 before returning to gain adjust blocks (automatic gain control tabs) 11, 13 and offset adjust blocks 12, 14.

Frey merely discloses an apparatus and method for reducing fixed pattern noise in a planar array that includes an array of image responsive detectors (Abstract); a correction element that iteratively reduces fixed pattern noise; a reference image signal corresponding to an image signal adjusted for pixel gain error; a correction signal; an offset update signal; an update element; and an offset estimate gain circuit (col. 3, lines 27-49).

Johnson merely discloses a dynamic range enhancement system that receives input signals from an imager device connected to a correlated double sampling circuit for receiving the video signal from the CCD imaging device and a variable gain amplifier (Abstract).

As discussed above, Chahal clearly discloses in Fig. 1 that the channel A and channel B signals proceed through gain adjust and offset adjust blocks 11, 12, digital comparators 18, 19, CELs 20, 21 U/D counters 22-25, and D-A converters 26-29, before returning to gain adjust blocks 11, 13 and offset adjust blocks 12, 14. Chahal does not disclose a signal output to a video channel without an automatic gain control tab. As can be seen clearly in Fig. 1, both channels A and B have gain adjust blocks (automatic gain control tabs) 11, 13. Thus, Chahal does not provide a video signal output from an integrator and compensating for pixel error for both a video channel with an automatic gain control tab and a video channel without an automatic gain control tab.

For at least this reason, the rejection of claims 1 and 21 under 35 U.S.C. §102(b) must be withdrawn.

Frey and Johnson fail to overcome the above-noted deficiency of Chahal with respect to claims 1 and 21. Therefore, the claims depending from claims 1 and 21 are allowable at least for their dependency on allowable base claims. Accordingly, withdrawal of the rejections under 35 U.S.C. §§102 and 103 are respectfully requested.

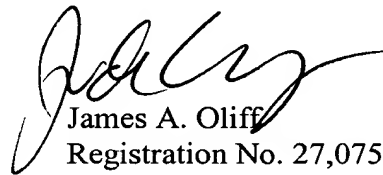
Moreover, as shown in Fig. 1, Chahal discloses adjusting channel offset values 12, 14 after adjusting gain values 11, 13. As such, Chahal would not, even if modified based on Frey and/or Johnson, have provided the feature of providing an offset level setpoint before calibrating pixel gain, as claimed in claim 2.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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